

Fig. 1 Transmitted pulses with instantaneous frequencies of two steps for increased bandwidth. Sub-pulse pair: (0,1), (2,3), (4,5), ...

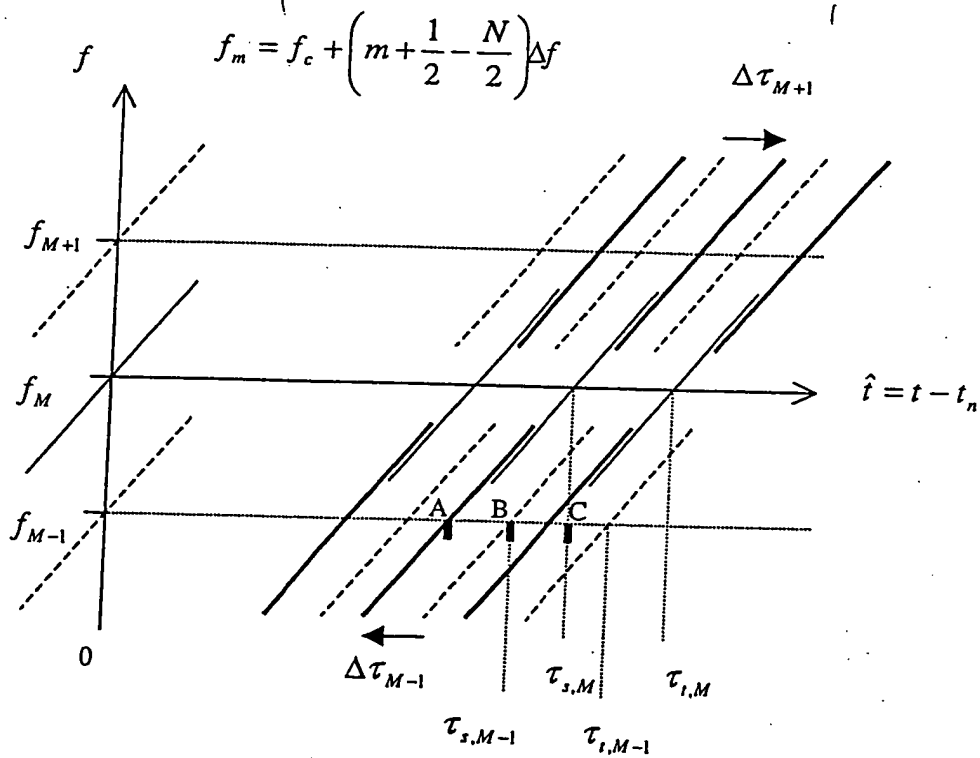


Fig. 2 Frequencies of the returned signals in three steps

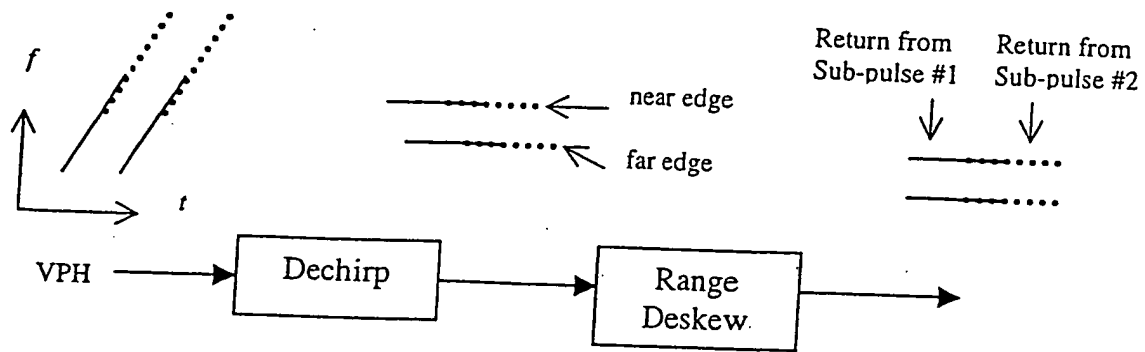


Fig. 3 Signals from two sub-pulses with proper phase adjustments and time shift

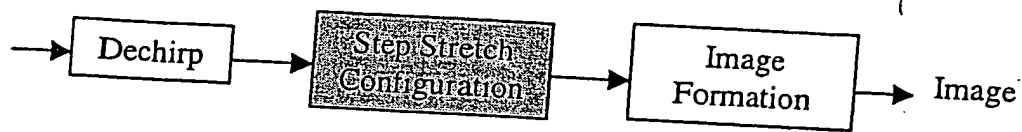


Fig. 4 Range sample combining block in the SAR signal processing chain

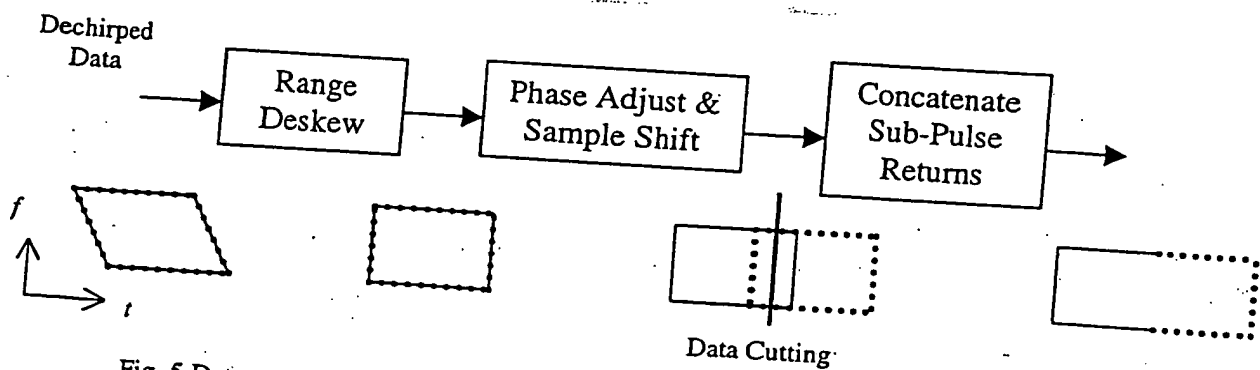


Fig. 5 Data combining sequence for configuration A

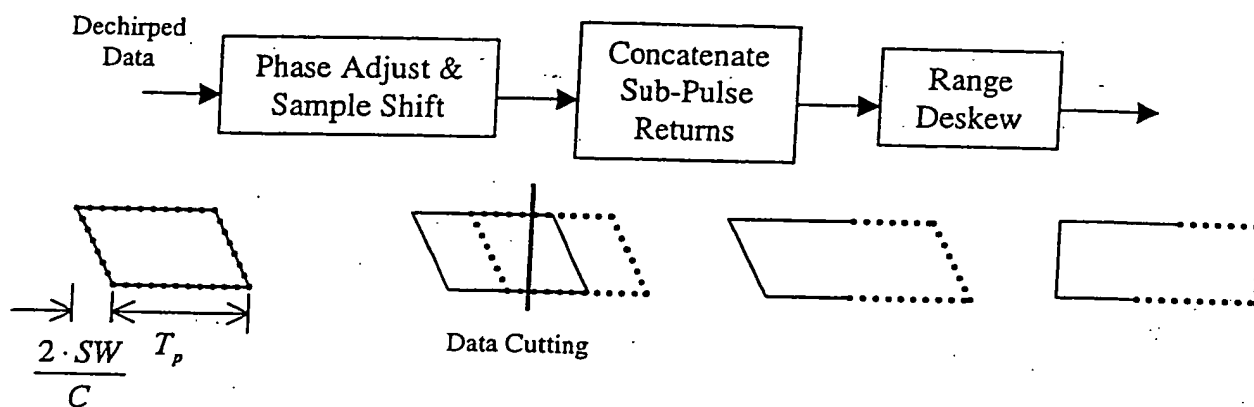


Fig. 6 Data combining sequence for configuration B

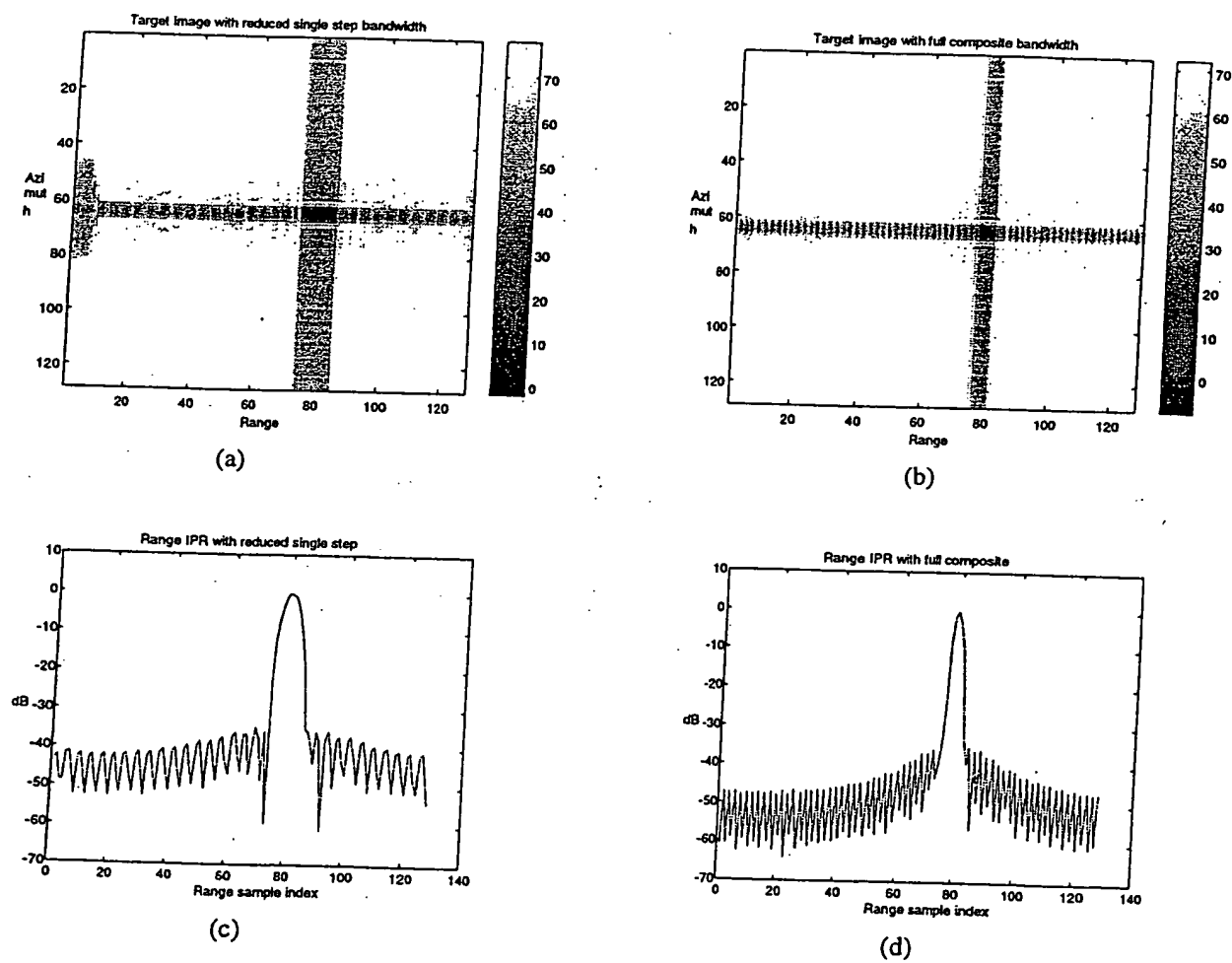


Fig. 7 Formed image and range IPR plots with reduced single step bandwidth (a,c) and full composite bandwidth (b,d)

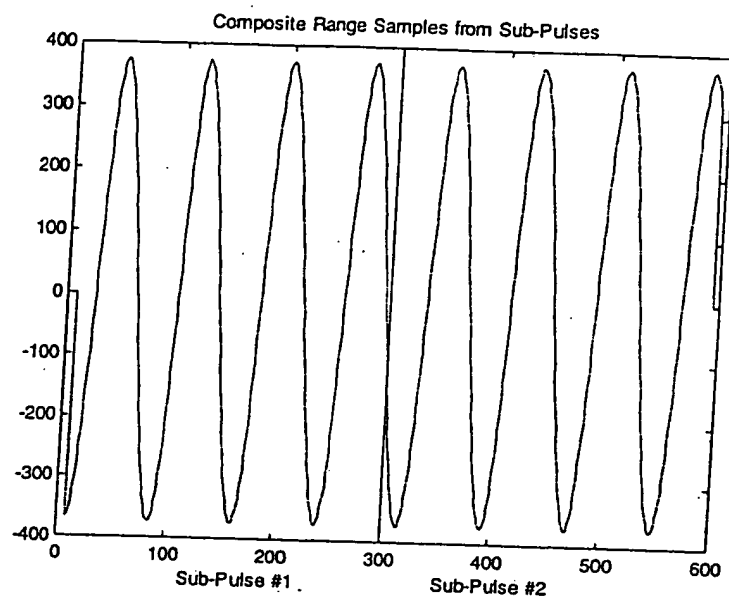


Fig. 8 Composite range samples by cutting and concatenating dechirped range samples from two sub-pulse returns